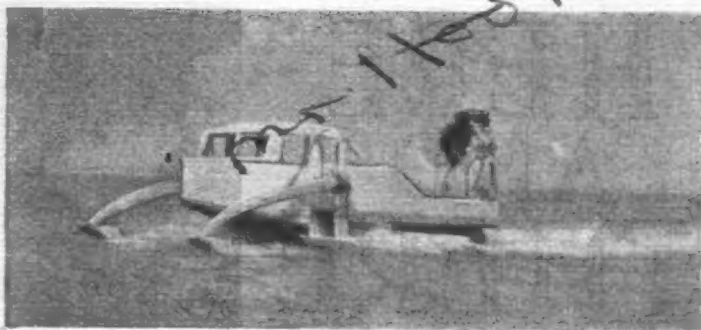


be about the same, since the lower power is offset by the lower cruising speed. It should also be possible to get more "bodies" into a given gross weight than in aircraft, so a Hydrofin would appear to promise operational economy somewhere between those of ships and aircraft.

As for comfort in such craft, small waves are "ironed-out," and in the Farnborough tests the model ran steadily with only about 2 deg. pitching. In large waves it ran smoothly over regular waves which involved up to $\pm 0.5g$. The report on the tests expresses the view that in full-size craft it should be possible to raise this to $\pm 1g$ by suitable combined springing and damping of the jockey system. The report also states that stability in roll is enormously greater than that of a displacement craft, and that no difficulty should be experienced in a cross or partially cross sea, the Hydrofin rolling just sufficiently to remain perpendicular to the local water surface.

A good deal of research and experimentation will obviously be needed to bring the Hydrofin principle to full development, but its smooth and economical speed on water is so attractive as to make the effort worth while. As for aeronautical applications, something might be done with a variant in helping flying boats to unstick in a short run. The Hydrofin craft as now visualized would



The HN-4 running. The auxiliary hydro-foils are just emerging.

appear to have possibilities for Air/Sea Rescue, where the time factor is of great importance. Should it be found later, when more development work has been done, that the principle can be applied to craft of fairly large size, one can visualize (it should hardly be put stronger than that) the Hydrofin as a small aircraft carrier. Pilots would welcome the steady platform provided by its deck, and the Navy (if the Admiralty could ever conceivably be persuaded to look at a Hydrofin) would find its speed useful in getting aircraft to the scene of operations quickly.

Production for the U.S. Air Force

DETAILS of contracts awarded to manufacturers by the U.S. Air Force have recently been published in America.

Defence appears to be the keynote of the present purchasing policy, the makers of the F-80, F-84 and F-86 single-jet fighters having received a large proportion of the military orders.

Boeing B-50: A total of 377 four-engined bombers in this series have been built or are now under contract to Boeing; 347 of these are sub-types B-50 A, B or D, with only minor differences, but the 30 B-50 Cs ordered are powered by the new Pratt and Whitney R-4360 "compound" engines, with General Electric variable-discharge turbines. It is reported that, due to the differences between the B-50 C and the other aircraft of the series, the former may be re-designated B-54.

Boeing C-97 A Stratofreighter: 27 of these heavy transports are on order. The wings, tail unit, undercarriage and other components of the C-97 A are interchangeable with those of the B-50.

Consolidated-Vultee B-36 A: Heavy bomber with 230-ft wing span and six 3,000 h.p. Pratt and Whitney engines in pusher installations. The Air Force contract calls for 95 of these aircraft, which may carry McDonnell XF-85 Parasite fighters.

Consolidated-Vultee L-13: Light communications and artillery observation high-wing monoplane, in a similar class to our own Auster A.2/45, powered by a 245 h.p. Franklin engine. 146 L-13s are on order.

Douglas C-24 C: An order has been placed for immediate production of 28 of these large all-purpose transports, at a cost of \$95,000,000.

Fairchild C-119 B: This twin-engined cargo aircraft is an improved version of the C-82 Packet, more than 150 of which are in service with the U.S.A.F. 99 C-119 Bs have been ordered under the 1949 purchasing programme, and 37 under this year's programme.

Grumman SA-16 A Albatross: Powerful twin-engined amphibian, suitable for air-sea rescue work and also supplied to the U.S. Navy. The U.S.A.F. will receive 32 SA-16As.

Lockheed F-80 C Shooting Star: 457 F-80 Cs are to be supplied to the U.S.A.F. Over 1,000 of the earlier and less powerful F-80s have already been built. America's air reserve force, the Air National Guard, is already receiving Shooting Stars. Lockheed are also producing 128 TF-80 C two-seat trainer versions of this well-known single-jet fighter.

North American B-45: First multi-jet bomber to go into production, powered by four "paired" TG-180 axial-flow turbojets. 96 B-45 As and 94 B-45 Cs have been ordered but the differences between the two versions are not stated.

North American F-86: This latest American jet fighter to go into production recently captured the world speed record for the U.S.A.F. at 670 m.p.h. 674 F-86s will be supplied.

North American T-28: A two-seat, multi-purpose trainer, completes the trio of new North American production aircraft; a tricycle undercarriage is a novel feature. The present contract is for 268 T-28s.

Northrop B-49 and B-35: Eight TG-180 turbojets power this flying-wing bomber of 172-ft span. 32 are on order. Ten

Northrop B-35s with Pratt and Whitney R-4360 compound engines are also being built.

Republic F-84 Thunderjet: The third American single-jet fighter in quantity production; 300 F-84 As have been supplied, 300 more remain to be delivered, and a new U.S.A.F. contract calls for 409 later model F-84 Cs.

Ryan L-17 B Navion: Originally a North American design, then known as the L-17A, and now taken over by Ryans, who have a contract for 158 of these four-seat personnel transports. 83 L-17As were supplied last year.

THE PLASTICS MARK

BEFORE the war, the British Plastics Federation were discussing with the British Standards Institution the necessity for evolving some official mark of quality for plastic products. Some progress was made at that time, but it is only recently that the scheme for a Certification Mark for the plastics industry had been launched.

The intention is to give purchasers an independent assurance that the marked materials and products conform to precise requirements laid down by an authority other than the producer, and the purpose is to ensure that, by the allocation and use of the Mark, materials and articles carrying the insignia are correctly manufactured according to the relevant B.S. Specification.

At present, the certification scheme is applicable only to moulding powders made from phenol-formaldehyde and urea-formaldehyde resins, and certain mouldings made therefrom. However, this is the initiation of a long-term scheme which, it is hoped, will gradually become universal.

Licences have already been issued to Bakelite, Birkbys, British Resin Products, E. K. Cole, Ferguson, Halex and I.C.I. Applications for licences applicable to products for which B.S. Specifications are available must be addressed to the British Plastics Federation or to the British Standards Institution. The factories concerned are then visited by B.S.I. inspectors to ascertain whether there are adequate testing facilities. The B.S.I. Mark sub-committee consider each application on its merits and determine, particularly from the inspectors' reports, whether the suggested testing arrangements are satisfactory or need modification.

Each applicant to whom a licence is granted will be given a code letter for use on a Certification Mark, together with a code letter and number for the particular British Standard and grade of material to which the licence refers. A licence can be endorsed for additional products.

The Certification Mark for moulding powders has been registered in Argentina, Australia, Canada, New Zealand, South Africa, Sweden and Switzerland.

A CORRECTION

LAST week, under one of the photographs taken at the R.Ae.S. Conversazione, we inadvertently married Capt. Cyril Uwin's daughter to Mr. Lawrence Wingfield. The offending inscription should have read: Mrs. Uwins, Miss Eve Uwins, Capt. Cyril Uwins and Mr. Lawrence Wingfield.